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MUSHAMBO, MARTIN				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/599,425

Applicant(s)

TANAKA ET AL.

Examiner

MARTIN MUSHAMBO

Art Unit

2625

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. This is a response to applicant's response filed on 03/16/2010. Claims 1-20 are pending. Claims 1 and 15 have been amended. Claims 16-20 have been added.

Response to Arguments

2. Applicant's arguments with respect to claims 1 and 15 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Mori (JP 2001075950)

Regarding claim 1, Mori discloses a print buffer unit temporally storing a plurality of print data and selecting designated print data from among the plurality of print data to be printed on a printer, **(MORI, Fig.1)** comprising:
a data-inputting section receiving the plurality of print data created in a host apparatus;
(MORI, fig.8, [0004] lines 1-2, [0018] lines 1-3, [0068] lines 1-3 Figure 2 depicts a print system with a buffer unit '202' connected to a PC '201' that sends data to the printer through the buffer unit. Data are inputted through the connection) a data-storing section storing the plurality of the print data transferred from the data-inputting

section; **(MORI, fig.1 element 110, [0013] lines 3-4, [0062] lines 5-6)** a print-image creating section creating a print image to be printed on the printer from the designated print data; **(MORI, [0062] lines 10-18)**

a print-image displaying section displaying the print image of the designated print data on a display panel; **(MORI, [0012] lines 1-8)** and a data-outputting section transferring the designated print data to the printer according to an instruction for printing the designated print data after the print image of the designated print data is visually identified. **(MORI, [0012] lines 10-11)**

Regarding claim 2 dependent on claim 1, Mori discloses the print buffer unit, further comprising: a print-data modifying section modifying the print data **(MORI, fig.13 element 1102)**.

Regarding claim 3 dependent on claim 2, Mori discloses the print buffer unit, wherein the print-data modifying section comprises at least one of print-sequence changing means for changing the sequence of printing of the print data, print-data duplicating means for duplicating the print data, and print-data deleting means for deleting the print data **(MORI, [0028] lines 1-7)**.

Regarding claim 4 dependent on claim 2, Mori discloses the print buffer unit, wherein the print-data modifying section comprises print-image modifying means for

modifying the print image (**MORI, fig.13 element 1102, [0039] lines 1-4 colors of the print image can be edited**).

Regarding claim 5 dependent on claim 3, Mori discloses the print buffer unit, wherein the print-data modifying section further comprises print- image modifying means for modifying the print image (**MORI, fig.13 element 1102, [0039] lines 1-4 colors of the print image can be edited**).

Regarding claim 15, Mori discloses a print system (**Mori, fig.2**) comprising:
a print buffer unit including a display panel: (**MORI, Fig.1 element 201**)
printable data being input to the print buffer unit; (**MORI, fig.8, [0004] lines 1-2, [0018] lines 1-3, [0068] lines 1-3 Figure 2 depicts a print system with a buffer unit '202' connected to a PC '201' that sends data to the printer through the buffer unit. Data are inputted through the connection**) and a printer (**MORI, fig.1 element 203**):
wherein the print buffer unit creates a print image from the data and displays the print image on the display panel; (**MORI, [0062] lines 6-10**) wherein the print buffer unit sends the data to the printer, the data being modified so as to change the print image; and wherein the printer prints on the basis of the data. (**MORI, [0012] lines 10-11, [0030] lines 1-3 printed data on paper medium is equivalent to image previewed**)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori, in view of Iwabuchi et al. (JP 04-094955 hereinafter referred to as Iwabuchi) cited in IDS filed on 09/28/2010.

Regarding claim 16, Mori discloses a print buffer unit (**Mori, fig.2 element 202**) comprising: an operation-inputting section including an operation switch configured to receive print buffer operational instructions input by a user of the print buffer unit; (**MORI, [0095] lines 1-9**) a data-inputting section configured to receive print data created in a host apparatus; (**MORI, fig.8, [0004] lines 1-2, [0018] lines 1-3, [0068] lines 1-3 Figure 2 depicts a print system with a buffer unit '202' connected to a PC '201' that sends data to the printer through the buffer unit. Data are inputted through the connection**) a data-storing section configured to store the print data received from the data-inputting section; (**MORI, fig.1 element 110, [0013] lines 3-4, [0062] lines 5-6**) a print-image creating section operable to create a print image to be printed on the printer from the print data; (**MORI, [0062] lines 10-18**) a print-image displaying section operable to display the print image; (**MORI, [0014] lines 1-5 display control, [0015] lines 1-4**) a display panel included with the print-image displaying

section configured to display the print image; (**MORI, fig.13 element 1101, [0095] lines 1-2 preview display screen**) a modification-inputting section configured to transmit instructions for modification of the print image to a print image modifying means provided in a print data modifying section configured to modify the print data; (**MORI, fig.13 element 1102**) a modification pad adjacent to the display panel that is configured to receive inputs from a user for modifying the print image; (**MORI, fig.6 element 405, fig.7 element 505, [0067] lines 5-8**) a memory for storing the print image (**MORI, fig.1 element 110**);

Mori does not explicitly disclose "a battery operable to power the entire print buffer unit." However, Iwabuchi discloses "a battery operable to power the entire print buffer unit." (**Iwabuchi, fig.1B element 1a, fig.6A element 1a, fig.19 element 47**) It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Mori with the teachings of Iwabuchi since they are both analogous in image processing related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Mori with the teachings of Iwabuchi in order to provide back up power.

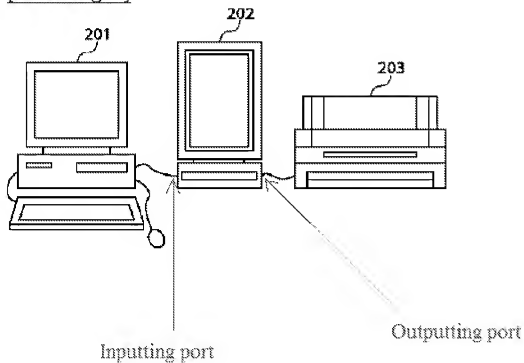
Regarding claim 17 dependent on claim 16, Mori as modified with Wabuchi discloses the print buffer unit, wherein the print-data modifying section further comprises: a print-data sorting means configured to modify a sequence that the print data is printed; (**MORI, [0034] lines 1-4 reverse order, choosing even-numbered page**) a print-data duplicating means configured to duplicate the print data; (**MORI,**

[0034] lines 3-6 duplicating/doubling) a print-data deleting means configured to delete the print data; **(MORI, [0125] lines 7-8)** and a print-data restoring means **(MORI, [0125] lines 8-10 correcting means).**

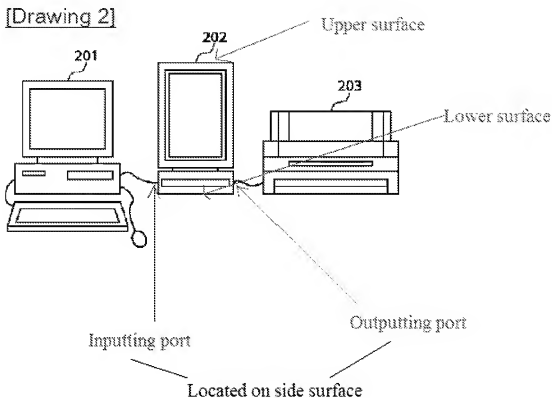
Regarding claim 18 dependent on claim 16, Mori as modified with Wabuchi discloses the print buffer unit, wherein the print-image creating section splits the print image into at least two parts; and the print-image displaying section merges the split parts of the print image into one and displays a merged print- image. **(MORI, [0117] lines 1-9)**

Regarding claim 19 dependent on claim 16, Mori as modified with Wabuchi discloses the print buffer unit, further comprising a data inputting port and a data outputting port. **(Mori, fig.2, see illustration below)**

[Drawing 2]



Regarding claim 20 dependent on claim 16, Mori as modified with Wabuchi discloses the print buffer unit, further comprising a housing having an upper surface, a lower surface opposite to the upper surface, and a side surface between the upper surface and the lower surface; wherein the data inputting port and the data outputting port are located at the side surface; (**MORI, fig.2 element 202, see illustration below**)



Mori and Wabuchi do not disclose "wherein the display panel is between the modification pad the data inputting port." However, applicant has not disclosed any specific advantage or criticality of having the display panel between the modification pad and the data inputting port.. As such, the above limitations are a matter of design choice.

Accordingly, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to have in order to make the print buffer device portable.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori, in view of Wang (US 2004/0243826).

Regarding claim 6 dependent on claim 1, Mori does not disclose "The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut." However, Wang discloses "The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut." (**Wang, [0019] lines 1-12 maintaining means saving data or preventing data loss**) It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Mori with the teachings of Wang since they are both analogous in computer data processing related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Mori with the teachings of Wang in order to provide data protection during abnormal power off time. (**Wang, [0005] lines 6-9**)

Regarding claim 7 dependent on claim 2, Mori does not disclose "The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed

content even after power supply is cut.” However, Wang discloses “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” **(Wang, [0019] lines 1-12 maintaining means saving data or preventing data loss)** It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Mori with the teachings of Wang since they are both analogous in computer data processing related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Mori with the teachings of Wang in order to provide data protection during abnormal power off time. **(Wang, [0005] lines 6-9)**

Regarding claim 8 dependent on claim 3, Mori does not disclose “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” However, Wang discloses “The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut.” **(Wang, [0019] lines 1-12 maintaining means saving data or preventing data loss)** It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Mori with the teachings of Wang since they are both analogous in computer data processing related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Mori with the teachings of Wang in order to provide data protection during abnormal power off time. **(Wang, [0005] lines 6-9)**

Regarding claim 9 dependent on claim 4, Mori does not disclose "The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut." However, Wang discloses "The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut." **(Wang, [0019] lines 1-12 maintaining means saving data or preventing data loss)** It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Mori with the teachings of Wang since they are both analogous in computer data processing related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Mori with the teachings of Wang in order to provide data protection during abnormal power off time. **(Wang, [0005] lines 6-9).**

Regarding claim 10 dependent on claim 5, Mori does not disclose "The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut." However, Wang discloses "The print buffer unit, wherein the print-image displaying section is capable of maintaining displayed content even after power supply is cut." **(Wang, [0019] lines 1-12 maintaining means saving data or preventing data loss)** It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Mori with the teachings of Wang since they are both analogous in computer data processing related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Mori with the teachings of Wang in

order to provide data protection during abnormal power off time. **(Wang, [0005] lines 6-9).**

9. Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori, in view of Tyler et al. (US 5638498) hereinafter referred to as Tyler.

Regarding claim 11 dependent on claim 1, Mori does not disclose "The print buffer unit, wherein the print-image creating section creates the print image split into at least two parts; and the print-image displaying section merges the split parts of the print image into one and displays the print image." However, Tyler discloses "The print buffer unit, wherein the print-image creating section creates the print image split into at least two parts; and the print-image displaying section merges the split parts of the print image into one and displays the print image." **(Tyler, col.9 lines 44-53)** It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Mori with the teachings of Tyler since they are both analogous in print control related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Mori with the teachings of Tyler in order to lower memory requirement for displaying data. **(Tyler, col.2 lines 8-20).**

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori and Wang, in view of Tyler et al. (US 5638498) hereinafter referred to as Tyler.

Regarding claim 12 dependent on claim 10, Mori as modified with Wang does not disclose "The print buffer unit wherein the print-image creating section creates the print image split into at least two parts; and the print-image displaying section merges the split parts of the print image into one and displays the print image." However, Tyler discloses "The print buffer unit wherein the print-image creating section creates the print image split into at least two parts; and the print-image displaying section merges the split parts of the print image into one and displays the print image." **(Tyler, col.9 lines 44-53)** It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Mori and Wang with the teachings of Tyler since they are both analogous in print control related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Mori and Wang with the teachings of Tyler in order to lower memory requirement for displaying data. **(Tyler, col.2 lines 8-20)**

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori, in view of Applicant Admitted Prior Art hereinafter referred to as AAPA.

Regarding claim 13 dependent on claim 1, Mori does not disclose "The print buffer unit, wherein the print buffer unit is driven by a portable power source." However AAPA discloses "The print buffer unit, wherein the print buffer unit is driven by a portable power source." **(AAPA, Specification page 1 lines 15-16)** It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the

teachings of Mori with the teachings of AAPA since they are both analogous in power driven device related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Mori with the teachings of AAPA in order to provide a DC back-up power to the devices.

12. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori and Wang, as modified with Tyler in view of Applicant Admitted Prior Art hereinafter referred to as AAPA.

Regarding claim 14 dependent on claim 12, Mori and Wang, as modified with Tyler, do not disclose "The print buffer unit, wherein the print buffer unit is driven by a portable power source." However AAPA discloses "The print buffer unit, wherein the print buffer unit is driven by a portable power source." (**AAPA, Specification page 1 lines 15-16**) It would have been obvious to one ordinary skilled in the art at the time of the invention to combine the teachings of Mori and Wang, as modified with Tyler, with the teachings of AAPA since they are both analogous in power driven device related field. One ordinary skilled in the art at the time of the invention would have been motivated to combine the teachings of Mori and Wang, as modified with Tyler, with the teachings of AAPA in order to provide a DC back-up power to the devices.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **MARTIN MUSHAMBO** whose telephone number is (571)270-3390. The examiner can normally be reached on **Monday - Friday / 7:30 am- 5:00 pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Benny Q. Tieu** can be reached on (571) 272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M.M/
5/5/2010

/Benny Q Tieu/
Supervisory Patent Examiner, Art Unit 2625